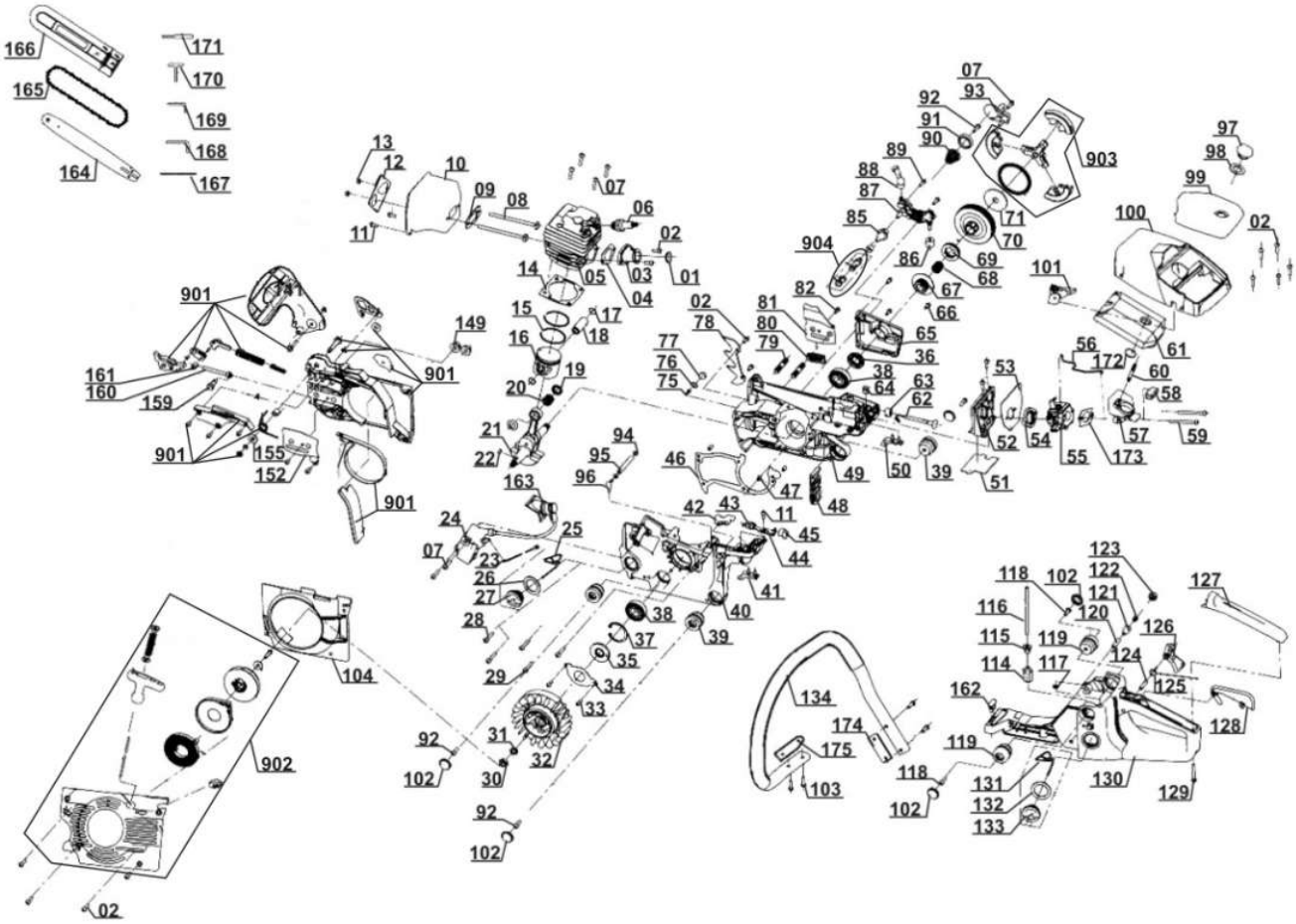
iSC GmbH
Customer Service
Eschenstraße 6
94405 Landau an der Isar
Telefon: +49 (0) 180 / 5120509 (14ct/min)
Fax: +49 (0) 180 / 5835830 (14ct/min)
eMail: info@isc-gmbh.info
www.isc-gmbh.info

SPJCS 4645
Benzin-Kettensäge

Artikel-Nr.:
Ident-Nr.:



Komponenten / Ersatzteile

Position	Artikel-Nr.	Beschreibung	Position	Artikel-Nr.	Beschreibung
6	450139001006	Zündkerze LDL7T	55	450139001055	Vergaser
10	450139001010	Auspuff	61	450139001061	Luftfilter
15	450139001015	Kolbenring	78	450139001078	Krallenanschlag
16	450139001016	Kolben	87	450139001087	Ölpumpe
17	450139001017	Sicherungsring	97	450139001097	Befestigungsschraube für Luftfilter
18	450139001018	Kolbenbolzen D11x34	98	450139001098	Dichtring
24	450139001024	Zündspule	99	450139001099	Abdeckung für Luftfilter
27	450139001027	Öltankkappe	114	450139001114	Benzinfilter

Komponenten / Ersatzteile

Position	Artikel-Nr.	Beschreibung
126	450139001126	Schalthebel
127	450139001127	Abdeckung für Handgriff
128	450139001128	Hebel für Sicherheitsschalter
133	450139001133	Treibstofftankkappe
134	450139001134	Vorderer Griff
166	450139001166	Abdeckung der Leitschiene
901	450139001901	Seitenabdeckung komplett
902	450139001902	Seilzugstarter komplett
903	450139001903	Kupplung komplett
904	450139001904	Ölfilter komplett
0	450139001178	Mischbehälter
0	450139001186	Gummiventil
0	450139001187	Entlüftungsventil für Benzintank

SPEAR & JACKSON

Original Operating Instruction
Petrol Chain Saw

"WARNING! PLEASE READ THESE INSTRUCTIONS BEFORE OPERATING THIS UNIT"

"KEEP THIS MANUAL FOR FUTURE REFERENCE"

CE

Art. No. 45.013.95 **I.Nr: 01019**

SPJCS 4645

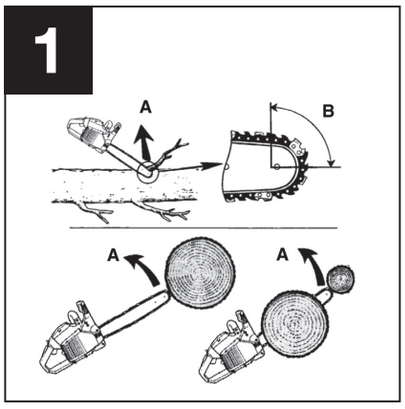
Read and follow the operating instructions and safety information before using for the first time.

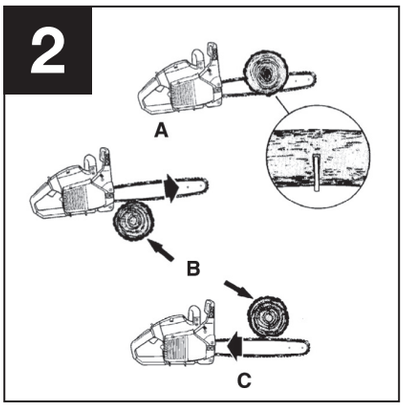
Always wear PPE (Personal Protective Clothing).

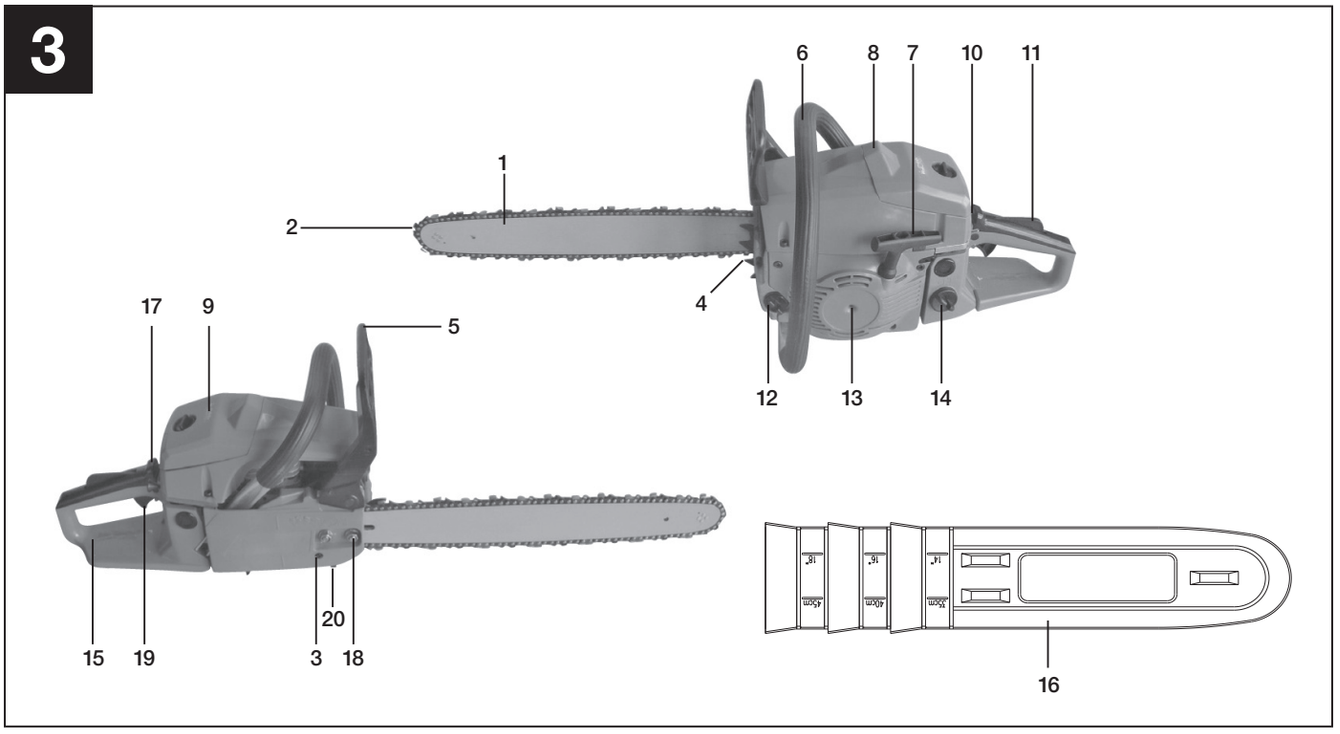
Wear a safety helmet, eye and ear protection!

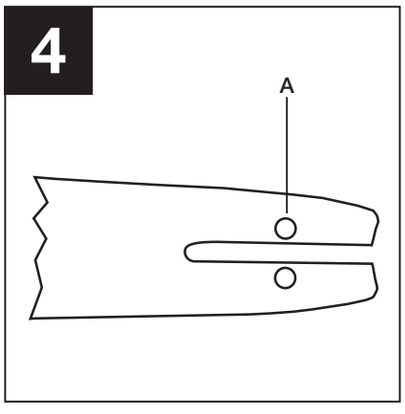
Wear safety shoes!

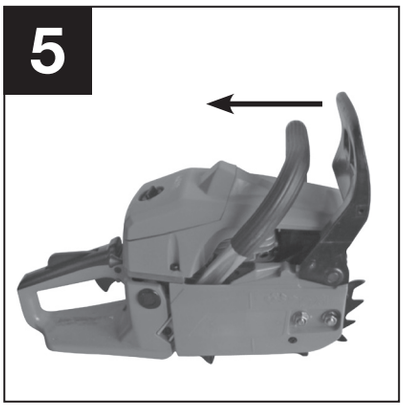
Wear safety gloves!

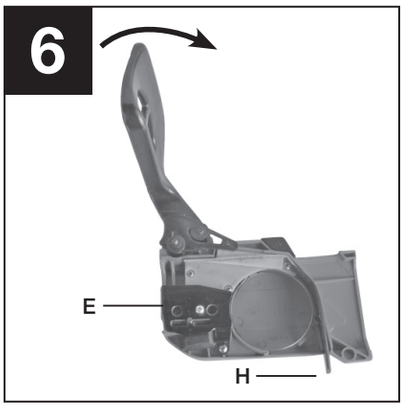

1
A
B
A
A

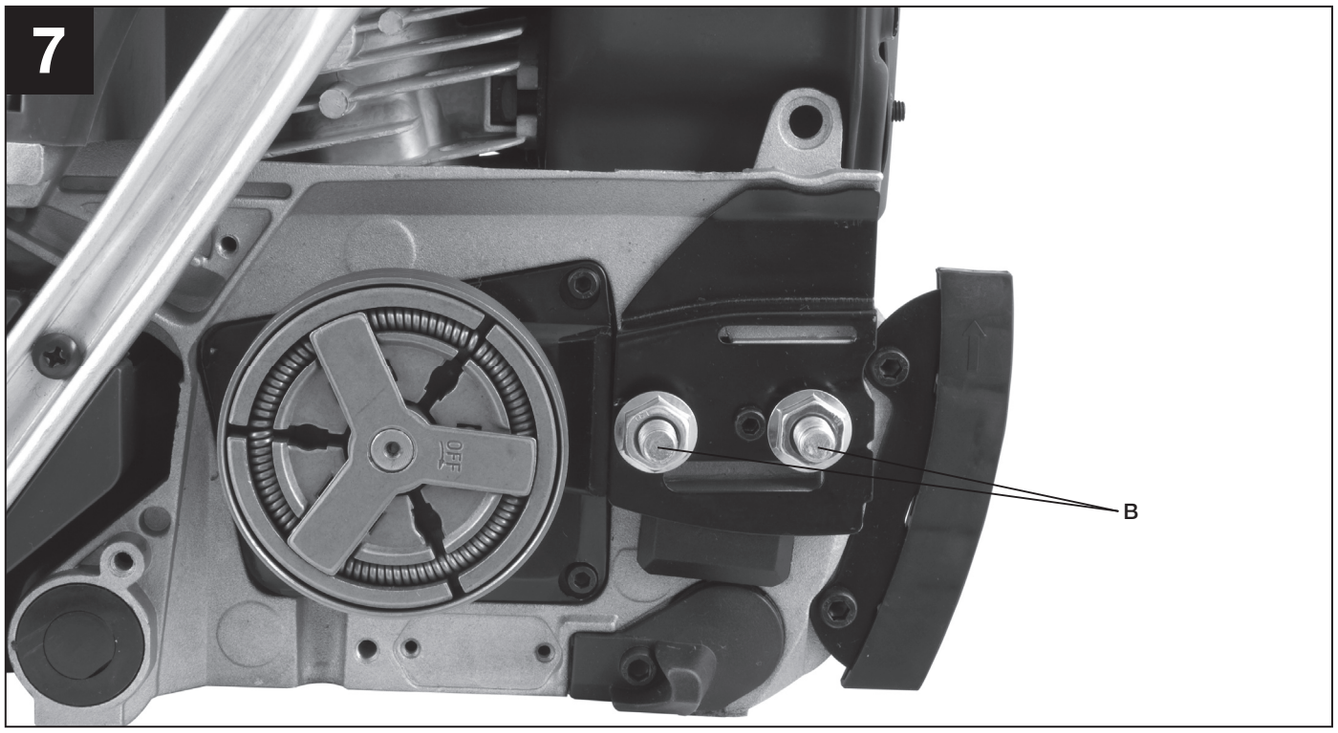

2
A
B
C

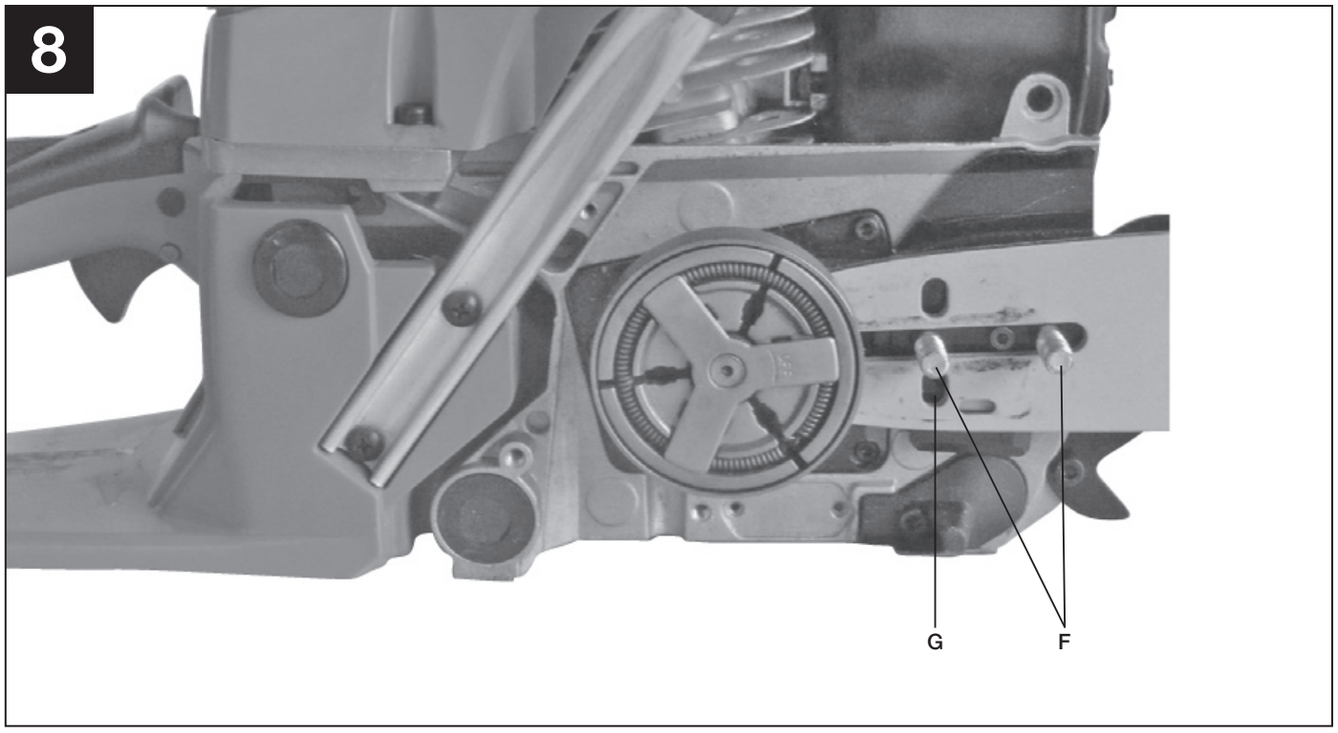

3
6
8
7
10
11
1
2
4
12
13
14
17
9
5
15
19
20
3
18
16

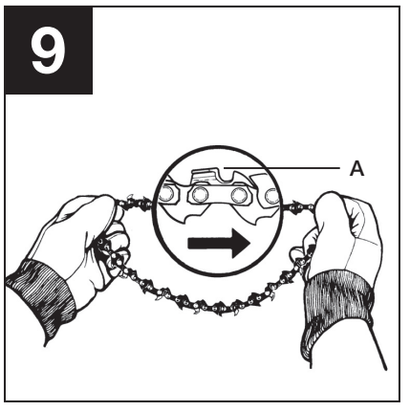

4
A

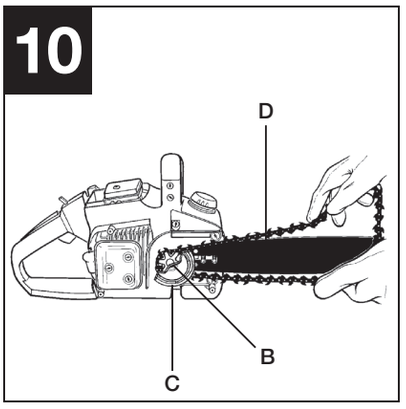

5

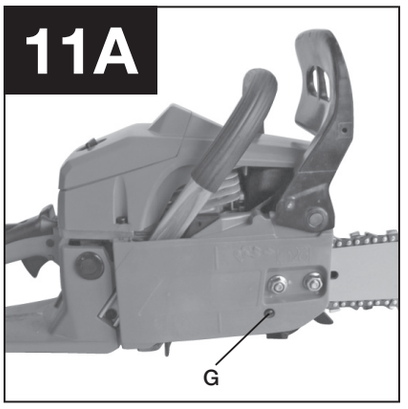

6
E
H

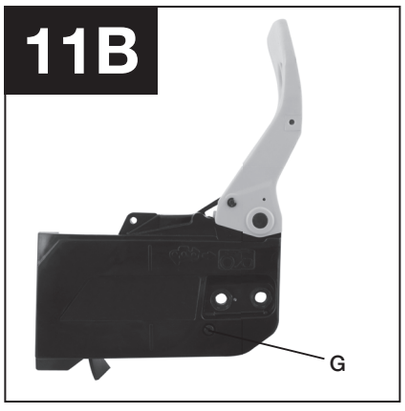

7
OFF
B

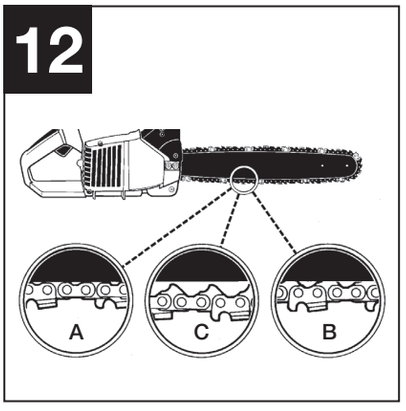

8
G
F

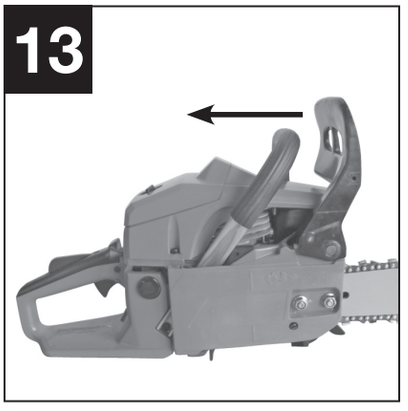

9
A

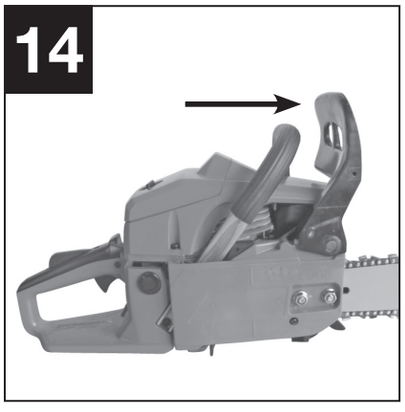

10
D
B
C

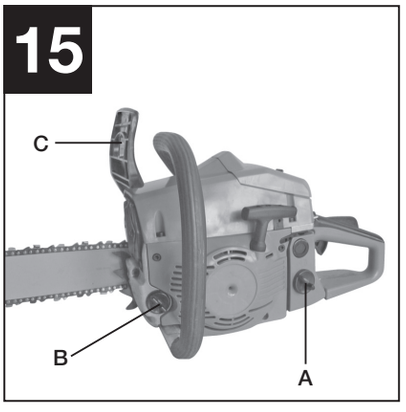

11A
G


11B
G

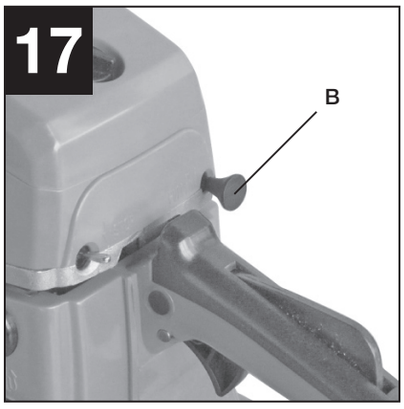

12
A
C
B

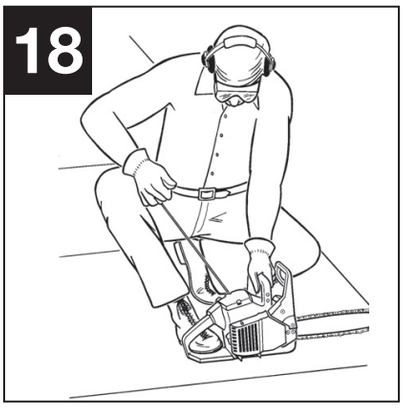

13

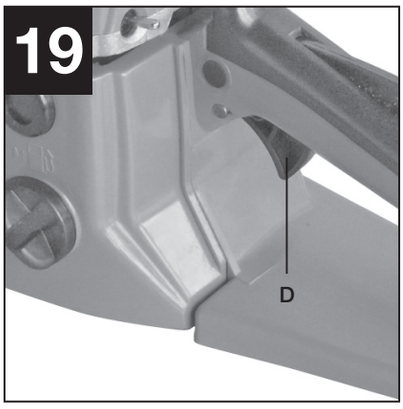

14

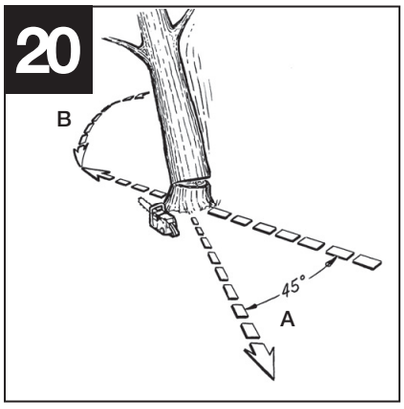

15
C
B
A

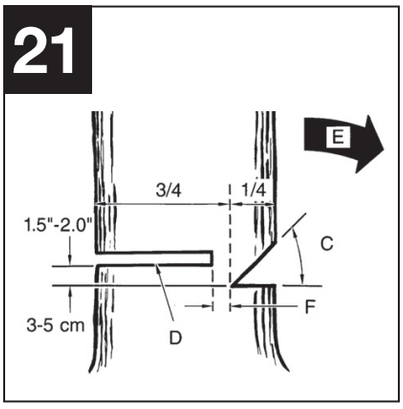
16
A
I
0


17
B


18

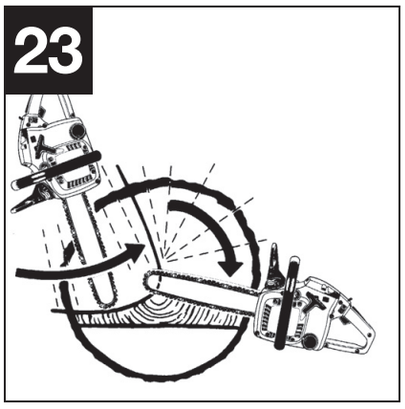

19
D


20
B
45°
A


21
E
3/4
1/4
1.5"-2.0"
C
F
3-5 cm
D

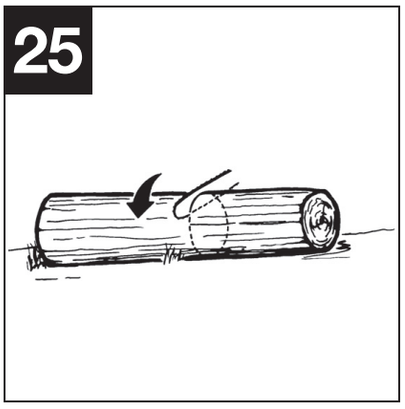
22

23

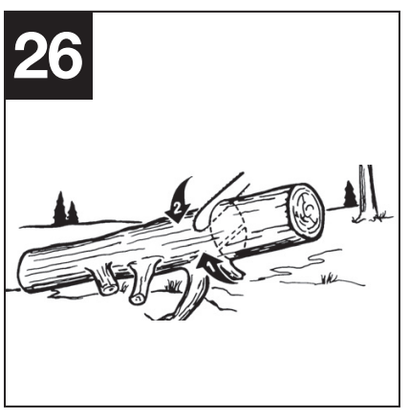


24

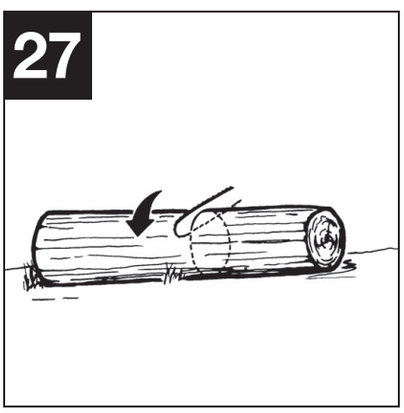
25



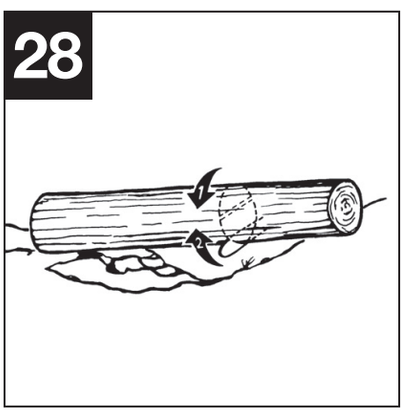
26



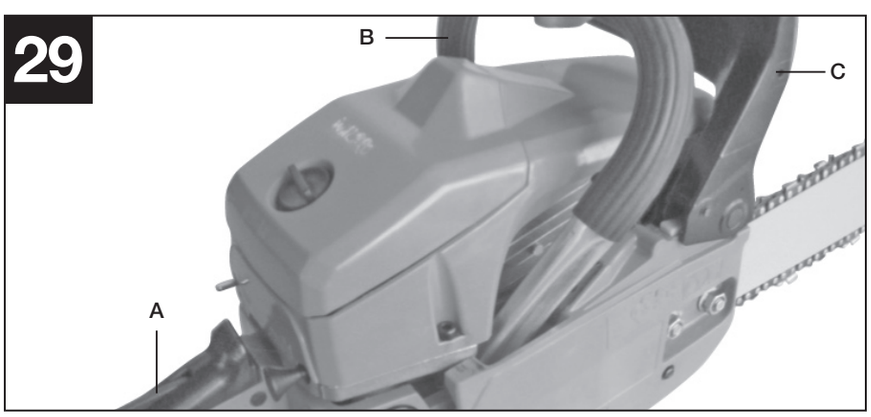
27



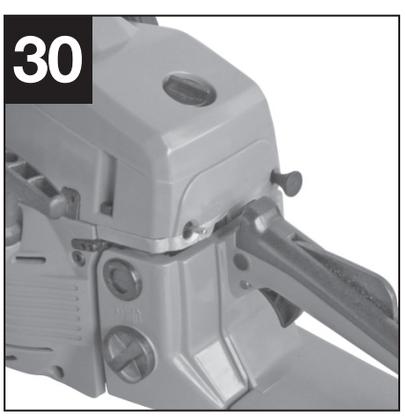
28



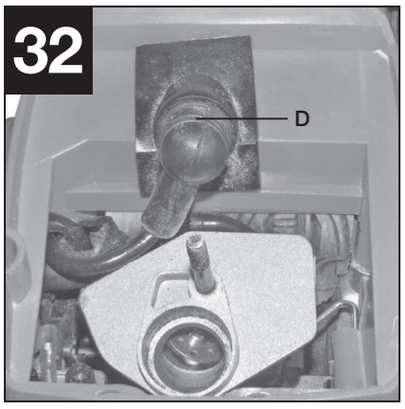
29

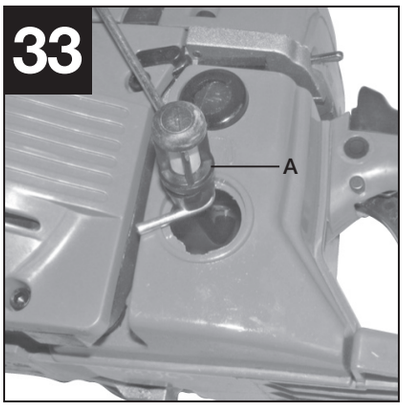


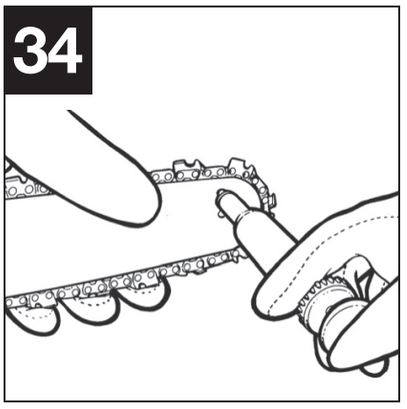
30

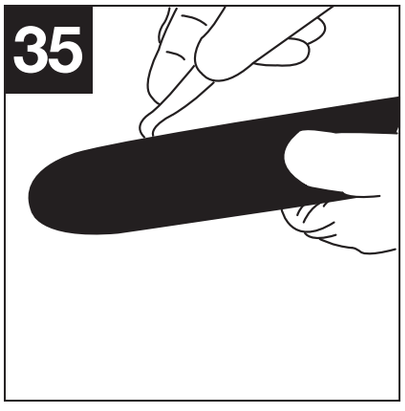


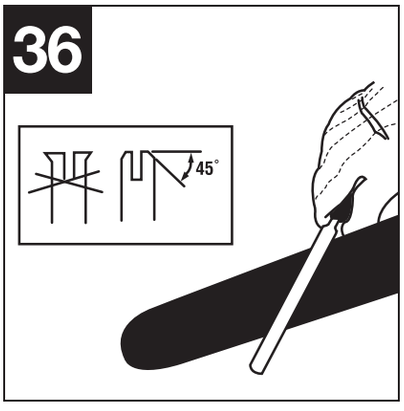
31

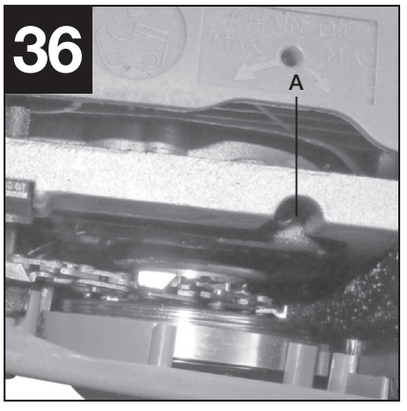

32
D

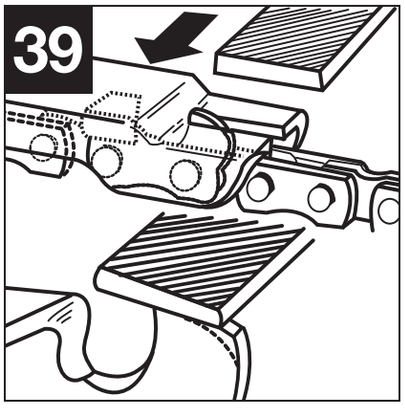

33
A

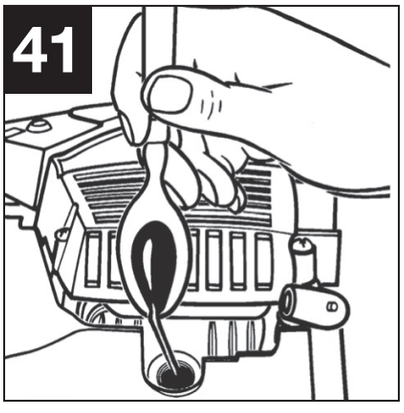

34

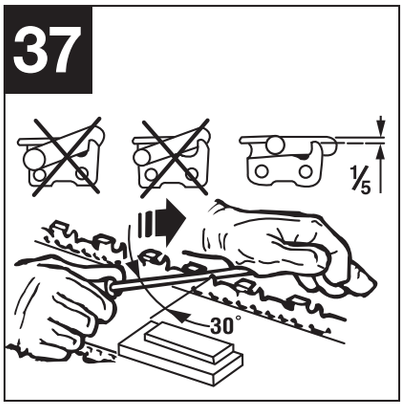

35


36
45°


36
A


39


41


37
1/5
30°

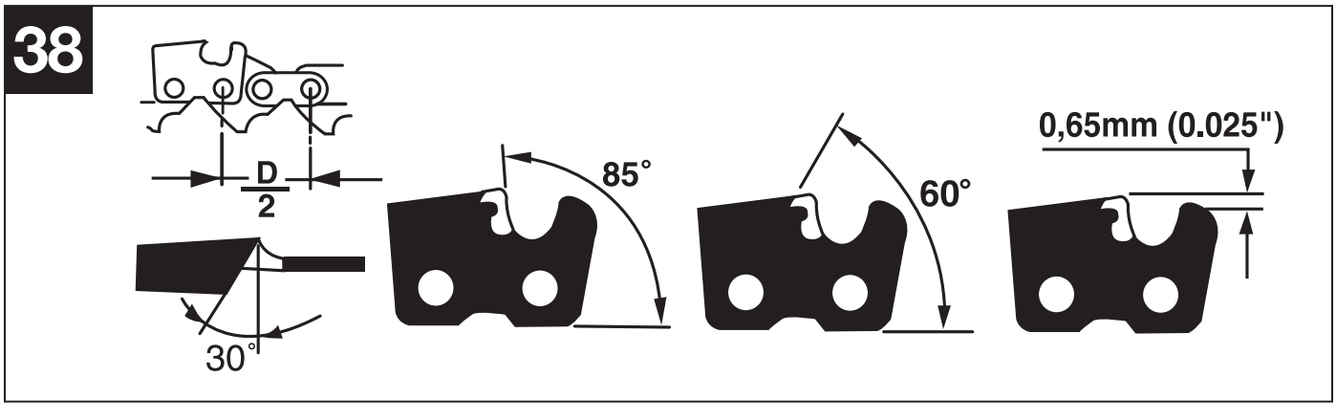

38
D
2
30°
85°
60°
0,65mm (0.025")

Table of contents

		Page
1.	General safety regulations	10
2.	Assembly and Parts List	13
3.	Getting Started	14
4.	Features	15
5.	Instructions	15
6.	Other Useful Information	22
7.	Warranty Card	25

When using the equipment, a few safety precautions must be observed to avoid injuries and damage

1. Read the operating instructions carefully and comply with them at all times. It is important to consult these instructions in order to acquaint yourself with the unit, its proper use and the important safety regulations.
2. Keep this manual in a safe place, so that the information is available at all times.
3. If you give the equipment to any other person, make sure that you pass on these operating instructions as well.

We can accept no liability for damage or accidents which arise due to non-compliance with these instructions.

1. General safety regulations

Explanation of the symbols and warning signs on the machine

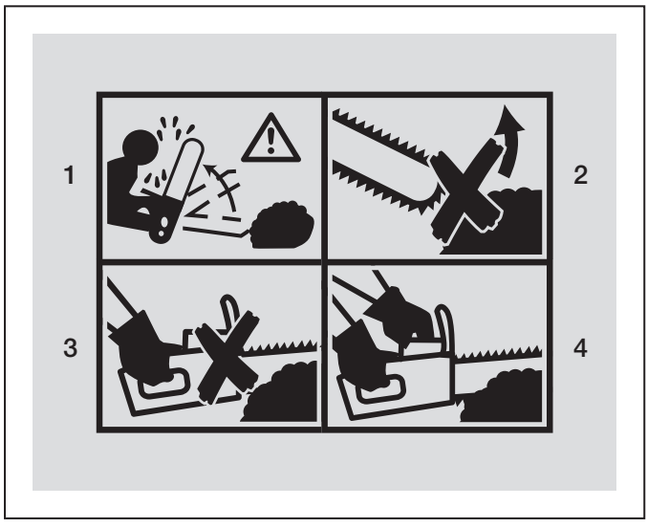
1. Read the user manual before using the machine.
2. On all jobs performed with the saw you must always wear safety goggles to guard your eyes from flying materials/objects and a sound-proof helmet, ear plugs or the like to protect your hearing. Wear a safety helmet if there is a risk of objects falling on you from above.
3. Important! Wear gloves to protect your hands.
4. Wear safety shoes to protect your feet.
5. Warning! Danger!
6. Make sure that the chain brake is released. Pull back the handle/chain brake before operating.
7. Noise emission complies with Directive 2000/14/EC!

Explanation of the pictograms for handling on the machine

A safety sign is fitted to the chain saw's fan filter cover. This label, along with the safety instructions on these pages, should be carefully read before attempting to operate this unit. Important: Picture 1/2/3 Warns about a dangerous method of working that must not be used. Picture 4 Recommends operation for safe sawing.

⚠ **Important:**

1. Beware of recoil.
2. Do not hold the saw in one hand.
3. Avoid contact with the tip of the rail (chain return point). RECOMMENDED.
4. **Important:** Hold the saw firmly with both hands. Place your right hand on the rear handle and your left hand on the front handle.



Kickback safety precautions

⚠ **Warning:** Kickback can lead to dangerous loss of control of the chain saw and result in serious or fatal injury to the saw operator or to anyone standing close by. Always be alert. Rotational kickback and pinch-kickback are major chain saw operational dangers and the leading cause of most accidents.

KICKBACK may occur when the NOSE or TIP of the guide bar touches an object, or when wood closes in and pinches the saw chain in the cut. Tip contact in some cases may cause a lightning-fast reverse reaction, kicking the guide bar up and back toward the operator.

PINCHING the saw chain along the BOTTOM of the guide bar may PULL the saw forward away from the operator. PINCHING the saw chain along the TOP of the guide bar may PUSH the guide bar rapidly back toward the operator.

Any of these reactions may cause you to lose control of the saw, which could result in serious personal injury.

Beware of the following: Rotary recoil (Fig. 1)

A = Recoil distance
B = Recoil reaction zone

Impact/Jamming recoil and pulling reactions (Fig. 2)

A = Pull
B = Solid objects
C = Push

To prevent pulling reactions, place the wood you wish to cut against the claw stop. Use the claw stop as a pivot point during cutting (Fig. 2).

Safety Instructions

⚠ **Warning:** When using petrol tools, basic safety precautions, including the following, should always be followed to reduce the risk of serious personal injury and/or damage to the unit.

Read all these instructions before operating this product and save these instructions

1. DO NOT operate a chain saw with one hand! Serious injury to the operator, helpers, bystanders, or any combination of these persons may result from one-handed operation. A chainsaw is intended for two-handed use.
2. Do NOT use the saw if you are tired, ill or under the influence of alcohol and/or drugs.
3. Use safety footwear, snug-fitting clothing, protective gloves, and eye, hearing and head protection devices.
4. Use caution when handling fuel. Move the chainsaw at least 10 feet (3m) from the fueling point before starting the engine.
5. DO NOT allow other persons to be near when starting or cutting with the chain saw. Keep bystanders and animals out of the work area.
6. DO NOT start cutting until you have a clear work area, secure footing, and a planned retreat path from the falling tree.
7. Keep all parts of your body away from the saw chain when the engine is running.
8. Before you start the engine, make sure that the saw chain is not contacting anything.
9. Carry the chain saw with the engine stopped, the guide bar and saw chain to the rear, and the exhaust away from your body.
10. NEVER use a chainsaw which is damaged, incorrectly set or incompletely and loosely assembled. Make sure that the chainsaw stops when the chain brake is applied.
11. Shut off the engine before setting the chain saw down.
12. Use extreme caution when cutting small size brush and saplings because slender material may catch the saw chain and be whipped toward you or pull you off balance.
13. When cutting a limb that is under tension, be alert for springback so that you will not be struck when the tension in the wood fibres is released.
14. Keep the handles dry, clean, and free of oil or fuel mixture.
15. Operate the chain saw only in well-ventilated areas.
16. DO NOT operate a chain saw in a tree unless you have been specifically trained to do so.
17. All chain saw service, other than the items listed in the user manual safety and maintenance instructions, should be performed by competent chain saw service personnel.
18. When transporting your chain saw, use the appropriate guide bar scabbard.
19. DO NOT operate your chain saw near or around flammable liquids or gases whether in or out of doors. An explosion and/or fire may result.
20. Do not fill fuel tank, oil or lubricate when the engine of chain saw is running.
21. USE THE RIGHT TOOL: Cut wood only. Do not use the chain saw for purposes for which it was not intended. For example, do not use the chain saw for cutting plastic, masonry, or non building materials.
22. The engine will create toxic exhaust fumes as soon as the engine is started. Never work in enclosed rooms or in rooms with poor ventilation.
23. If your fingers become white or you feel an awkward feeling (prickle) in your fingers, stop working immediately!

Note: The chainsaw is designed for occasional use by home owners, garden owners and campers and is for general work such as stump grubbing, cutting firewood, etc. It is not designed for lengthy use. If it is used for a lengthy period, the vibrations it causes in the hands of the user may result in circulation problems (white finger syndrome).

Kickback

Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. If the bar tip contacts, it may cause a lightning-fast reverse reaction, kicking the guide bar up and back towards the operator. Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator. Either of these reactions may cause you to loose control of the saw, which could result in serious personal injury. Do not rely exclusively upon the safety devices built into your saw. As a chain saw user, you should take several steps to keep your cutting jobs free from accident or injury.

1. With a basic understanding of kickback, you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents.
2. Keep a good firm grip on the saw with both hands, the right hand on the rear handle, and the left hand on the front handle, when the engine is running. Use a firm grip with thumbs and fingers encircling the chain saw handles. A firm grip will help you reduce kickback and maintain control of the saw. Don't let go.
3. Make sure that the area in which you are cutting is free from obstructions. Do not let the nose of the guide bar contact a log, branch, or any other obstruction which could be hit while you are operating the saw.
4. Cut at high engine speeds.
5. Do not overreach or cut above shoulder height.
6. Follow manufacturer's sharpening and maintenance instructions for the saw chain.
7. Only use replacement bars and chains specified by the manufacturer or the equivalent.

Safety features (Fig. 3)

2. LOW KICKBACK SAW CHAIN helps significantly reduce kickback, or the intensity of kickback, due to specially designed depth gauges and guard links.
5. CHAIN BRAKE LEVER / HAND GUARD protects the operator's left hand in the event it slips off the front handle while saw is running.
5. CHAIN BRAKE is a safety feature designed to reduce the possibility of injury due to kickback by stopping a moving saw chain in milliseconds. It is activated by the CHAIN BRAKE lever.
10. STOP SWITCH immediately stops the engine when tripped. Stop switch must be pushed to "On (1)" position to start or restart engine.
11. SAFETY TRIGGER prevents accidental acceleration of the engine. Throttle trigger (19) cannot be squeezed unless the safety latch is depressed.
20. CHAIN CATCHER reduces the danger of injury in the event saw chain breaks or derails during operation. The chain catcher is designed to intercept a whipping chain.

Note: Study your saw and be familiar with its parts.

Proper use

The chain is designed exclusively for sawing wood. You may only fell trees if you have received the appropriate training. The manufacturer cannot be held liable for damage caused by improper or incorrect usage.

Please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the machine is used in commercial, trade or industrial businesses or for equivalent purposes.

Additional Risks:

Even if the chainsaw is used correctly, there are still risks of harm or injury associated with the tool's use. Beware of the following risks:

- Contact with an unprotected saw chain (cutting damage)
- Grasping a moving saw chain (cutting damage)
- Unexpected movement of the chain bar (cutting damage)
- Parts being thrown from the chain, if the chain breaks
- Material pieces (wood chips, etc.) being thrown from the chain during use

- Not using the specified ear protection will cause hearing damage
- Inhaling parts of material, or exhaust fumes from the combustion engine
- Petrol contacts with the skin

Environmental protection

Dispose of soiled maintenance material and operating materials at the appropriate collection point. Recycle packaging material, metal and plastics.

2. Assembly and Parts List

Layout (Fig.3)

1. Chain bar
2. Saw chain
3. Chain tensioning screw
4. Stop claw
5. Chain brake lever/ front hand guard
6. Front handle
7. Starter handle
8. Spark plug (under the air filter cover)
9. Air filter cover
10. Stop switch
11. Safety lock
12. Oil tank cap
13. Fan housing
14. Fuel tank cap
15. Rear handle/bootstrap
16. Chain guard
17. Choke/(carburetor setting)
18. Bar fastening nut
19. Throttle lever
20. Chain catch

Installation

⚠ **Important:** Do not start the engine until the saw is fully assembled.

⚠ **Important:** Wear protective gloves at all times when handling the chain.

Please note that the Chain brake lever/front handle guard (Fig. 6.) is supplied separately in the box.

Fit the chain bar

To ensure that the bar and the chain are supplied with oil, USE ONLY THE ORIGINAL BAR. The oiling hole (Fig. 4/Item A) must be kept clear of dirt and any build-up of residue.

1. Make sure the Chain brake lever is pulled back into the DISENGAGED position (Fig. 5/Fig 6).
2. Remove the two bar fastening nuts (B) from the main unit (Fig 7).
3. Fit the open end of the chain bar over the die bar pins (F) (Fig. 8).

To install saw chain

1. Spread the chain out in a loop with the cutting edges (A) pointing CLOCKWISE around loop (Fig. 9).
2. Slip the chain around the sprocket (B) behind the clutch (C). Make sure the links fit between the sprocket teeth (Fig. 10).
3. Guide the drive links into the groove (D) and around the end of the bar (Fig. 10).

Note: The saw chain may droop slightly on the lower part of bar. This is normal.

4. Pull the chain bar forward until the chain is closely seated. Make sure that all the drive links are in the groove of the bar.
5. Using a screwdriver, run the adjustment screw (Fig 11A/Item G and Fig. 11B/Item G) COUNTERCLOCKWISE until the TANG (Fig. 6/ Item E) (projecting prong) is to the end of its travel toward the circular brake band (Fig. 6).
6. Fit the Chain brake lever/front handle guard by aligning the tang with the slot in the chain bar (re-adjust the tang position if it does not line up correctly). Make sure that the pivot (Fig. 6/Item E) fits into the chain bar (Fig. 8/Item G). Make sure that the rubber strip (Fig 6/item H) is flat and does not get caught on the engine wall during assembly. The chain must not slip off the bar when you do this. Fit the two nuts (Fig. 7/ Item B) and tighten them by hand and then follow the instructions for adjusting the tension in ADJUSTING THE CHAIN TENSION.

Saw chain tension adjustment

Proper tension of the saw chain is extremely important and must be checked before starting, as well as during any cutting operation. Taking the time to make needed adjustments to the saw chain will result in improved cutting performance and prolonged chain life.

⚠ **Warning:** Always wear heavy duty gloves when handling saw chain or making saw chain adjustments.

1. Before adjusting the chain tension screw you must slacken the 2x retaining nuts. Otherwise this will damage the tension screw.
2. Hold nose of guide bar up and turn adjustment screw (G) CLOCKWISE to increase chain tension. Turning screw COUNTERCLOCKWISE will decrease amount of tension on chain. Ensure the chain fits snugly all the way around the guide bar (Fig. 10).
3. After making adjustment, and while still holding nose of bar in the uppermost position, tighten the bar retaining nuts securely. Chain has proper tension when it has a snug fit all around and can be pulled around by gloved hand.

Note: If chain is difficult to rotate on guide bar or if it binds, too much tension has been applied. This requires minor adjustment as follows:

4. Loosen the bar retaining nut so they are finger tight. Decrease tension by turning the bar adjustment screw COUNTERCLOCKWISE slowly. Move chain back and forth on bar. Continue to adjust until chain rotates freely, but fits snugly. Increase tension by turning bar adjustment screw CLOCKWISE.
5. When saw chain has proper tension, hold nose of bar in the uppermost position and tighten the bar retaining nut securely.

⚠ **Caution:** A new saw chain stretches, requiring adjustment after as few as 5 cuts. This is normal with a new chain, and the interval between future adjustments will lengthen quickly.

⚠ **Caution:** If the saw chain is TOO LOOSE or TOO TAUT, the drive wheel, chain bar, chain and crank shaft bearing will suffer premature wear. Fig. 12 shows the correct tension A (when cold) and tension B (when warm). Fig. C shows a chain that is too loose.

3. Getting started

Before starting the machine

Chain break mechanical test

Your chain saw is equipped with a Chain brake that reduces possibility of injury due to kickback. The brake is activated if pressure is applied against brake lever when, as in the event of kickback, operator's hand strikes the lever. When the brake is actuated, chain movement stops abruptly.

⚠ **Warning:** The purpose of the chain brake is to reduce the possibility of injury due to kickback; however, it cannot provide the intended measure of protection if the saw is operated carelessly. Always test the chain brake before using your saw and periodically while on the job.

To test chain brake

1. The Chain brake is DISENGAGED (chain can move) when BRAKE LEVER IS PULLED BACK AND LOCKED (Fig. 13).
2. The chain brake is ENGAGED (the chain is locked) when the brake lever is pulled forward and the mechanism (Fig. 14/Item A) can be seen. It should not be possible to move the chain (Fig. 14).

Note: The brake lever should snap into both positions. If strong resistance is felt, or lever does not move into either position, do not use your saw. Take it immediately to a professional Service Centre for repair.

Fuel and lubrication

Fuel

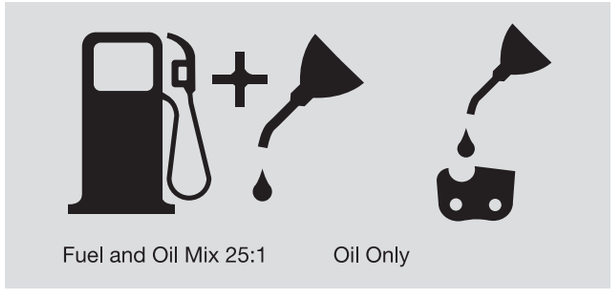
Use regular grade unleaded fuel mixed with 25:1 custom 2-cycle engine oil for best results.

Mixing fuel

Mix fuel with 2 cycle oil in an approved container. Shake gently and ensure thorough mix.

⚠ **Warning:** Never use straight fuel in your unit. This will cause permanent engine damage and void the manufacturer's warranty for that product. Never use a fuel mixture that has been stored for over 90 days.

⚠ **Warning:** If 2-cycle lubricant is to be used, it must be a premium grade oil for 2-cycle air cooled engines mixed at a 25:1 ratio. Do not use any 2-cycle oil product with a recommended mixing ratio of 100:1. If insufficient lubrication is the cause of engine damage, it voids the manufacturer's engine warranty for that occurrence.



Recommended fuels

Some conventional fuels are being blended with oxygenates such as alcohol or an ether compound to meet clean air standards. Your engine is designed to operate satisfactorily on any fuel intended for automotive use including oxygenated fuel. It is recommended to use unleaded petrol as fuel.

Lubrication of chain and chain bar

Whenever you refill the fuel tank with petrol you must also top up the level of chain oil in the chain oil tank. It is recommended to use standard chain oil.

Engine pre-start checks

⚠ **Warning:** Never start or operate the saw unless the bar and chain are properly installed.

1. Fill the fuel tank (A) with correct fuel mixture (Fig. 15).
2. Fill the oil tank (B) with chain oil (Fig. 15).
3. Be certain the chain brake is disengaged (C) before starting unit (Fig. 15).

Once you have filled the chain and oil tank, tighten the tank cover securely by hand. Do not use any tools to do so.

4. Features

- 45cm cutting length
- Automatic choke & primer assisting start up
- 21m/s chain speed
- 550ml fuel tank capacity
- Mixer bottle included

5. Instructions

Operation

Starting the engine

1. Take the brake off by pushing the lever back (Fig. 13).

2. Set the ignition switch (A) (Fig. 16) to the STOP (OFF, “0”) position.

3. Pull out the choke lever (B) (Fig. 17) until it locks.

4. Place the saw on a firm, flat surface. Hold the saw firmly as shown. Pull starter cord rapidly 4 times. Beware of the moving chain! (Fig. 19).

5. Push in the choke lever (B) as far as it will go (Fig. 17).

6. Set the ignition switch (A) (Fig. 16) to “On (I)” to start the machine

7. Hold saw firmly and pull starter rapidly up to 6 more times. Engine should start (Fig. 18).

8. Let the engine run for 10 seconds to warm up. Press the throttle lever (D) briefly, the engine will go to “idling” speed (Fig. 19). If engine failed to start, repeat these instructions.

⚠ **Important:** Always pull the starter cable slowly until you feel the initial resistance before you then pull it quickly to start the engine. Do not allow the starter cable to whip back of its own accord.

Restarting a warm engine

1. Make sure the switch is in the “ On (I)” position.
2. Pull the starter rope rapidly 6 times. The engine should start.

To stop engine

1. Release trigger and allow engine to return to idle speed.
2. Move STOP switch down to stop engine.

Note: To stop the engine in an emergency, activate the chain brake and switch the ON/OFF switch to “ Stop (0) ”.

General cutting instructions

⚠ **Important:** Felling trees is prohibited without the necessary training!

Felling

Felling is the term for cutting down a tree. Small trees up to 6-7 inches (15-18cm) in diameter are usually cut in a single cut. Larger trees require notch cuts. Notch cuts determine the direction the tree will fall.

⚠ **Warning:** A retreat path (A) should be planned and cleared as necessary before cuts are started. The retreat path should extend back and diagonally to the rear of the expected line of fall, as illustrated in Fig. 20.

⚠ **Warning:** If felling a tree on sloping ground, the chain saw operator should keep on the uphill side of the terrain, as the tree is likely to roll or slide downhill after it is felled.

Note: Direction of fall (B) is controlled by the notching cut. Before any cuts are made, consider the location of larger branches and natural lean of the tree to determine the way the tree will fall (Fig. 20).

⚠ **Warning:** Do not cut down a tree during high or changing winds or if there is a danger to property. Consult a tree professional. Do not cut down a tree if there is a danger of striking utility wires; notify the utility company before making any cuts.

General guidelines for felling trees (Fig. 21)

Normally felling consists of 2 main cutting operations, notching (C) and making the felling cut (D). Start making the upper notch cut (C) on the side of the tree facing the felling direction (E). Be sure you don't make the lower cut too deep into the trunk. The notch (C) should be deep enough to create a hinge (F) of sufficient width and strength. The notch should be wide enough to direct the fall of the tree for as long as possible.

⚠ **Warning:** Never walk in front of a tree that has been notched. Make the felling cut (D) from the other side of the tree and 1.5-2.0 inches (3-5 cm) above the edge of the notch (C). Never saw completely through the trunk. Always leave a hinge. The hinge guides the tree. If the trunk is completely cut through, control over the felling direction is lost.

Insert a wedge or felling lever in the cut well before the tree becomes unstable and starts to move. This will prevent the guidebar from binding in the felling cut if you have misjudged the falling direction. Make sure no bystanders have entered the range of the falling tree before you push it over.

⚠ **Warning:** Before making the final cut, always recheck the area for bystanders, animals or obstacles.

Felling cut

1. Use wooden or plastic wedges (A) to prevent binding the bar or chain (B) in the cut. Wedges also control felling (Fig. 22).
2. When diameter of wood being cut is greater than the bar length, make 2 cuts as shown (Fig. 23).

⚠ **Warning:** As the felling cut gets close to the hinge, the tree should begin to fall. When tree begins to fall, remove saw from cut, stop engine, put chain saw down, and leave area along retreat path (Fig. 20).

Limbing

Limbing a tree is the process of removing the branches from a fallen tree. Do not remove supporting limbs (A) until after the log is bucked (cut) into lengths (Fig. 24). Branches under tension should be cut from the bottom up to avoid binding the chain saw.

⚠ **Warning:** Never cut tree limbs while standing on tree trunk.

Bucking

Bucking is cutting a fallen log into lengths. Make sure you have a good footing and stand uphill of the log when cutting on sloping ground. If possible, the log should be supported so that the end to be cut off is not resting on the ground. If the log is supported at both ends and you must cut in the middle, make a downward cut halfway through the log and then make the undercut. This will prevent the log from pinching the bar and chain. Be careful that the chain does not cut into the ground when bucking as this causes rapid dulling of the chain. When bucking on a slope, always stand on the uphill side.

1. **Log supported along entire length:** Cut from top (overbuck), being careful to avoid cutting into the ground (Fig. 25).
2. **Log supported on 1 end:** First, cut from bottom (underbuck) 1/3 diameter of log to avoid splintering. Second, cut from above (overbuck) to meet first cut and avoid pinching (Fig. 26).
3. **Log supported on both ends:** First, overbuck 1/3 diameter of log to avoid splintering. Second, underbuck to meet first cut and avoid pinching (Fig. 27).

Note: The best way to hold a log while bucking is to use a sawhorse. When this is not possible, the log should be raised and supported by the limb stumps or by using supporting logs. Be sure the log being cut is securely supported.

Bucking using a sawhorse (Fig. 28)

For personal safety and ease of cutting, the correct position for vertical bucking is essential (Fig. 28).

A. Hold the saw firmly with both hands and keep the saw to the right of your body while cutting.
B. Keep the left arm as straight as possible.
C. Keep weight on both feet.

⚠ **Caution:** When working with the saw, always make sure that the saw chain and chain bar are sufficiently lubricated.

Maintenance

⚠ **Warning:** All maintenance work on the chainsaw apart from the work described in this manual may only be carried out by authorised after-sales service personnel.

Chain brake operational test

Test the chain brake periodically to ensure proper function.

Perform a chain brake test prior to initial cutting, following extensive cutting, and definitely following any chain brake service.

Test chain brake as follows (Fig. 29):

1. Place saw on a clear, firm, flat surface.
2. Start engine.
3. Grasp the rear handle (A) with your right hand.
4. With your left hand, hold the front handle (B) [not chain brake lever (C)] firmly.
5. Squeeze the throttle trigger to 1/3 throttle, then immediately activate the chain brake lever (C).

⚠ **Warning:** Activate the chain brake slowly and deliberately. Keep the chain from touching anything; don't let the saw tip forward.

6. Chain should stop abruptly. When it does, immediately release the throttle trigger.

⚠ **Warning:** If chain does not stop, turn engine off and take your unit to the nearest Gardenline Authorised Service Centre for service.

7. If chain brake functions properly, turn the engine off and return the chain brake to the DISENGAGED position.

Air filter

⚠ **Warning:** Never operate saw without the air filter. Dust and dirt will be drawn into engine and damage it. Keep the air filter clean! The air filter must be cleaned or replaced after every 20 hours of service.

Cleaning the air filter (Fig. 30/31)

1. Remove the top cover (A) by undoing the cover fastening screw (B) on the cover. You can then remove the cover (Fig. 31).
2. Lift out the air filter (C) (Fig. 32).
3. Clean air filter. Wash filter in clean, warm, soapy water. Rinse in clear, cool water. Air dry completely.

Note: It is advisable to have a supply of spare filters.

4. Insert the air filter. Fit the cover for the engine/air filter. Make sure that the cover fits perfectly when you do so. Tighten the fastening screw for the cover.

Fuel filter

⚠ **Warning:** Never use the saw without a fuel filter. After 100 hours in operation the fuel filter should be cleaned or, in case of damage, replaced. Be sure to empty the fuel tank before changing the filter.

1. Remove the fuel tank cap.
2. Bend a piece of soft wire.
3. Reach into fuel tank opening and hook fuel line. Carefully pull the fuel line toward the opening until you can reach it with your fingers.

Note: Do not pull hose completely out of tank.

4. Lift filter (A) out of tank (Fig. 33).
5. Pull off the filter with a twist and clean it; if the filter is damaged, dispose of it.
6. Insert a new filter. Place one end of the filter into the tank opening. Make sure that the filter is seated in the lower corner of the tank.
   If necessary, use a long screwdriver to move the filter to its correct position, taking care not to damage in the process.
7. Fill tank with fresh fuel/oil mixture. See Section Fuel and Lubrication. Install fuel cap.

Spark plug (Fig. 32)

⚠ **Warning:** To ensure that the saw's engine retains its power, the spark plug must be clean and have the correct electrode gap (0.6 mm). The spark plug must be cleaned or replaced after every 20 hours of service.

1. Set the On/Off switch to "Stop (0)".
2. Remove the top cover (A) by undoing the cover fastening screw (B) on the cover. You can then remove the filter (C) (Fig. 31).
3. Disconnect the ignition cable (D) from the spark plug by pulling and twisting it simultaneously (Fig. 32).
4. Remove the spark plug using a spark plug wrench. DO NOT USE ANY OTHER TOOLS.
5. Clean the spark plug with a copper wire brush or fit a new one.

Carburettor setting

The carburettor has been set to its perfect adjustment at the factory. If it requires adjusting, take the saw to your nearest authorised after-sales service outlet.

Chain bar maintenance

Regular lubrication of the chain bar (guide rail for the chain and teeth) is essential. The chain bar needs the maintenance described in the following section in order for the saw to work at an optimum level of performance.

⚠ **Caution:** The sprocket tip on your new saw has been pre-lubricated at the factory. Failure to lubricate the guide bar sprocket tip as explained below will result in poor performance and seizure, voiding the manufacturer's warranty.

Tools for lubrication

The Lube Gun is recommended for applying grease to the guide bar sprocket tip. The Lube Gun is equipped with a needle nose tip which is necessary for the efficient application of grease to the sprocket tip.

To lubricate sprocket tip

Lubrication of the sprocket tip is recommended after 10 hours of use or once a week, which ever occurs first. Always thoroughly clean guide bar sprocket tip before lubrication.

Note: The saw chain does not have to be removed in order to lubricate the teeth of the chain bar. Lubrication is possible during work, with the engine switched off.

⚠ **Warning:** Wear heavy duty work gloves when handling the bar and chain.

1. Set the On/Off switch to "Stop (0)".
2. Clean the guide bar sprocket tip.
3. Using the Lube Gun (optional), insert needle nose into the lubrication hole and inject grease until it appears at outside edge of sprocket tip (Fig .34).
4. Rotate saw chain by hand. Repeat lubrication procedure until the entire sprocket tip has been greased.

Most guide bar problems can be prevented merely by keeping the chain saw well maintained.

Insufficient guide bar lubrication and operating the saw with chain that is TOO TIGHT will contribute to rapid bar wear.

To help minimise bar wear, the following guide bar maintenance procedures are recommended.
Warning: Always wear protective gloves during maintenance operations. Do not carry out maintenance when the engine is hot.

Turning the chain bar

The bar should be reversed every 8 working hours to ensure uniform wear. Keep the bar groove and lubrication hole clean using the bar groove cleaner supplied optional. (Fig. 35) Check the bar rails frequently for wear and, if necessary, remove the burs and square-up the rails using the flat file (Fig. 36).

⚠ **Warning:** Never fit a new chain to a worn chain bar.

Oil passages
Oil passages on the bar should be cleaned to ensure proper lubrication of the bar and chain during operation.

Note: The condition of the oil passages can be easily checked. If the passages are clear, the chain will automatically give off a spray of oil within seconds of starting the saw. Your saw is equipped with an automatic oiler system.

Automatic chain lubrication
The chain saw is equipped with an automatic oil lubrication system with a toothed wheel drive. It automatically supplies the bar and the chain with the right quantity of oil. The moment the engine is accelerated, the oil also starts to flow through the bar plate more quickly as well.

The chain lubrication system has been set to its perfect adjustment at the factory. If it requires adjusting, take the saw to your nearest authorised after-sales service outlet.

A setting screw for adjusting the chain lubrication (Fig. 37/ Item A) is located on the underside of the chain saw. Turning the screw counter-clockwise increases the chain lubrication, turning it clockwise decreases the chain lubrication.

To check the chain lubrication, hold the chain saw, with the chain, over a piece of paper and run it at full speed for a few seconds. You will be able to judge the set amount of oil from the paper.

Chain maintenance

Chain sharpening
Chain sharpening requires special tools to ensure that cutters are sharpened at the correct angle and depth. For the inexperienced chain saw user, we recommend that the saw chain be professionally sharpened by the nearest professional Service Centre. If you feel comfortable sharpening your own saw chain, special tools are available from the professional Service Centre.

Chain sharpening (Fig. 38)
Sharpen the chain using protective gloves and a round file of ø3/16” (4.8mm).

Always sharpen the cutters only with outward strokes (Fig. 38) observing the values given in Fig. 39. After sharpening, the cutting links must all have the same width and length.

⚠ **Warning:** A sharp chain produces well-defined chips. When your chain starts to produce sawdust, it is time to sharpen. After the blades have been sharpened 3-4 times, check the height of the depth limiter and if necessary lower it with a flat file and then round off the front corner (Fig. 40).

Chain tension
Check the chain tension frequently and adjust as often as necessary to keep the chain snug on the bar, but loose enough to be pulled around by hand.

Breaking in a new saw chain
A new chain and bar will need chain readjustment after as few as 5 cuts. This is normal during the break-in period, and the interval between future adjustments will begin to lengthen quickly.

⚠ **Warning:** Never have more than 3 links removed from a loop of chain. This could cause damage to the sprocket. If in doubt please call the customer helpline.

Chain lubrication
Always make sure the automatic oiler system is working properly. Keep the oil tank filled with chain, bar and sprocket oil. Adequate lubrication of the bar and chain during cutting operations is essential to minimise friction with the guide bar. Never starve the bar and chain of lubricating oil. Running the saw dry or with too little oil will decrease cutting efficiency, shorten saw chain life, cause rapid dulling of chain, and lead to excessive wear of bar from overheating. Too little oil is evidenced by smoke or bar discolouration.

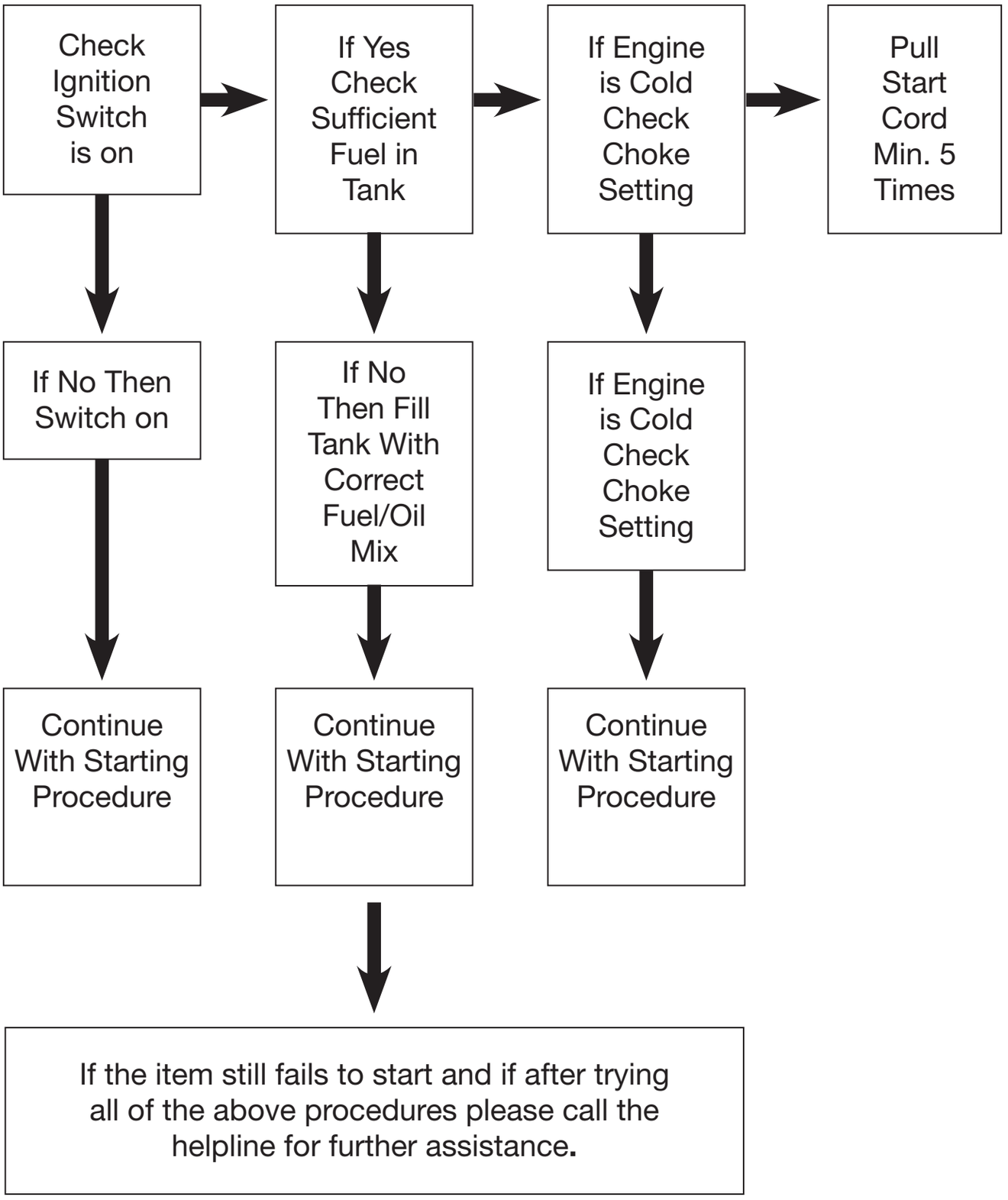
Ordering replacement parts

Please quote the following data when ordering replacement parts:

- Type of machine
- Article number of the machine
- Identification number of the machine
- Replacement part number of the part required

Helpline Numbers:
UK: 0151 649 1500
IRE: 1890 946244

Petrol Engine Starting Procedure/Check List


Check Ignition Switch is on
If Yes Check Sufficient Fuel in Tank
If Engine is Cold Check Choke Setting
Pull Start Cord Min. 5 Times
If No Then Switch on
If No Then Fill Tank With Correct Fuel/Oil Mix
If Engine is Cold Check Choke Setting
Continue With Starting Procedure
Continue With Starting Procedure
Continue With Starting Procedure
If the item still fails to start and if after trying all of the above procedures please call the helpline for further assistance.

6. Other Useful Information

FAULT	POSSIBLE CAUSES	TROUBLESHOOTING
Unit won't start or starts but will not run	Incorrect starting procedures	Follow instructions in the User Guide or refer to starting procedure check list on page 37
	Incorrect carburetor mixture adjustment setting	Have carburetor adjusted by an Authorised Service Centre
	Fouled spark plug	Clean/gap or replace plug
	Fuel filter plugged	Replace fuel filter
	Chain brake is on	Put Chain brake in off position
Unit starts, but engine has low power	Incorrect lever position on choke	Move to RUN position
	Dirty air filter	Remove, clean and reinstall filter
	Incorrect carburetor mixture adjustment setting	Have carburetor adjusted by an Authorised Service Centre
Engine hesitates	Incorrect carburetor mixture adjustment setting	Have carburetor adjusted by an Authorised Service Centre
No power under load	Incorrectly gapped spark plug	Clean/gap or replace plug
Runs erratically	Incorrect carburetor mixture adjustment setting	Have carburetor adjusted by an Authorised Service Centre
Smokes excessively	Incorrect fuel mixture	Use properly mixed fuel (25:1 mix)
Poor performance when operated	Blunt chain	Sharpen or replace the chain
	Loose chain	Tension the chain
Engine dies	Empty petrol tank	Fill up the petrol tank
	Fuel filter in the wrong position in the tank	Completely fill the petrol tank or re-position the fuel filter in the petrol tank
Insufficient chain lubrication (the cutter rail and chain get hot)	Empty oil tank for the chain	Top up the oil tank for the chain
	Oil lubrication opening blocked	Clean the oil lubrication hole in the cutter bar (Fig 4/Item A) Clean the groove in the cutter bar

Technical data

Engine displacement	46 cm^3
Maximum engine capacity	2 kW
Bar length	43 cm
Cutter rail length	(18˝) 45 cm
Chain pitch	(0.325 ˝), 8.255 mm
Chain thickness	(0.058 ^{4}˝), 1.47 mm
Idling speed	3600 rpm
Maximum speed with cutting equipment	10000 rpm
Tank capacity	550 ml
Oil tank capacity	260 ml
Anti-vibration function	Yes
Chain wheel teeth	7 x 8.255 mm
Chain brake	Yes
Clutch	Yes
Automatic chain lubrication	Yes
Low-kickback chain	Yes
Net weight without chain and chain bar	5.5 kg
Net weight (dry)	7 kg
Fuel consumption (specific)	560 g / kWh
LpA sound pressure level	104 dB(A)
LWA sound power level	116 dB(A)
Vibration a_{hv} (front handle)	max. 5.99 m/s^2
Vibration a_{hv} (rear handle)	max. 7.54 m/s^2
Chain type	Carlton (K2L-BL, 72E)
Bar type	POH18-58SH
Spark plug	LDL7T or NHSPLD L8RTF

Storage

⚠ **Caution:** Never put a chain saw into storage for longer than 30 days without carrying out the following steps.

Storing a chain saw

Storing a chain saw for longer than 30 days requires storage maintenance. Unless the storage instructions are followed, fuel remaining in the carburettor will evaporate, leaving gum-like deposits. This could lead to difficult starting and result in costly repairs.

1. Remove the fuel tank cap slowly to release any pressure in tank. Carefully drain the fuel tank.
2. Start the engine and let it run until the unit stops to remove fuel from carburettor.
3. Allow the engine to cool (approx. 5 minutes).
4. Remove the spark plug.
5. Pour 1 teaspoon of clean 2-cycle oil into the combustion chamber. Pull starter rope slowly several times to coat internal components. Replace spark plug (Fig. 41).

Note: Store the unit in a dry place and away from possible sources of ignition such as a furnace, gas hot water heater, gas dryer, etc.

Putting the saw back into operation

1. Remove spark plug.
2. Pull starter rope briskly to clear excess oil from combustion chamber.
3. Clean the spark plug and check that the electrode gap (approx 0.6mm) is correct.
4. Prepare unit for operation.
5. Fill fuel tank with proper fuel/oil mixture. See Fuel and Lubrication Section.

Waste disposal

The equipment and its accessories are made of various types of material, such as metal and plastic. Defective components must be disposed of as special waste. Ask your dealer or your local council.

7. Warranty Card

ISC GmbH · Eschenstraße 6 · D-94405 Landau/Isar

CE

Konformitätserklärung

(D) **erklärt folgende Konformität gemäß EU-Richtlinie und Normen für Artikel**
(GB) **explains the following conformity according to EU directives and norms for the following product**
(F) **déclare la conformité suivante selon la directive CE et les normes concernant l'article**
(I) **dichiara la seguente conformità secondo la direttiva UE e le norme per l'articolo**
(NL) **verklaart de volgende overeenstemming conform EU richtlijn en normen voor het product**
(E) **declara la siguiente conformidad a tenor de la directiva y normas de la UE para el artículo**
(P) **declara a seguinte conformidade, de acordo com a directiva CE e normas para o artigo**
(DK) **attesterer følgende overensstemmelse i medfør af EU-direktiv samt standarder for artikel**
(S) **förklarar följande överensstämmelse enl. EU-direktiv och standarder för artikeln**
(FIN) **vakuuttaa, että tuote täyttää EU-direktiivin ja standardien vaatimukset**
(EE) **tõendab toote vastavust EL direktiivile ja standarditele**
(CZ) **vydává následující prohlášení o shodě podle směrnice EU a norem pro výrobek**
(SLO) **potrjuje sledečo skladnost s smernico EU in standardi za izdelek**
(SK) **vydáva nasledujúce prehlásenie o zhode podl'a smernice EÚ a noriem pre výrobok**
(H) **a cikkekhez az EU-irányvonal és Normák szerint a következő konformitást jelenti ki**
(PL) **deklaruje zgodność wymienionego poniżej artykułu z następującymi normami na podstawie dyrektywy WE.**
(BG) **декларира съответното съответствие съгласно Директива на ЕС и норми за артикул**
(LV) **paskaidro šādu atbilstību ES direktīvai un standartiem**
(LT) **apibūdina šį atitikimą EU reikalavimams ir prekės normoms**
(RO) **declară următoarea conformitate conform directivei UE şi normelor pentru articolul**
(GR) **δηλώνει την ακόλουθη συμμόρφωση σύμφωνα με την Οδηγία ΕΚ και τα πρότυπα για το προϊόν**
(HR) **potvrđuje sljedeću usklađenost prema smjernicama EU i normama za artikl**
(BIH) **potvrđuje sljedeću usklađenost prema smjernicama EU i normama za artikl**
(RS) **potvrđuje sledeću usklađenost prema smernicama EZ i normama za artikal**
(RUS) **следующим удостоверяется, что следующие продукты соответствуют директивам и нормам ЕС**
(UKR) **проголошує про зазначену нижче відповідність виробу директивам та стандартам ЄС на виріб**
(MK) **ја изјавува следната сообрзност согласно ЕУ-директивата и нормите за артикли**
(TR) **Ürünü ile ilgili AB direktifleri ve normları gereğince aşağıda açıklanan uygunluğu belirtir**
(N) **erklærer følgende samsvar i henhold til EU-direktivet og standarder for artikkel**
(IS) **Lýsir uppfyllingu EU-reglna og annarra staðla vöru**

Petrol Chainsaw SPJCS 4645 (Spear & Jackson)

- ☐ **2009/105/EC**
- ☐ **2006/95/EC**
- ☐ **2006/28/EC**
- ☐ **2005/32/EC**
- ☒ **2004/108/EC**
- ☐ **2004/22/EC**
- ☐ **1999/5/EC**
- ☐ **97/23/EC**
- ☐ **90/396/EC**
- ☐ **89/686/EC_96/58/EC**
- ☒ **2006/42/EC**
  - ☒ **Annex IV**
    Notified Body: Intertek Deutschland GmbH
    Notified Body No.: 0905
    Reg. No.: 09SHW3070
- ☒ **2000/14/EC_2005/88/EC**
  - ☒ **Annex V**
  - ☐ **Annex VI**
    Noise: measured L_{WA} = 112,4 dB (A); guaranteed L_{WA} = 116 dB (A)
    P = 2 KW; L/Ø = cm
    Notified Body:
- ☒ **2004/26/EC**
  Emission No.: e11*97/68SA*2004/26*0825*00

Standard references: EN ISO 11681-1; EN ISO 14982

Landau/Isar, den 03.12.2009

Weichselgartner/General-Manager

Frank/Product-Management

First CE: 09
Art.-No.: 45.013.95 **I.-No.:** 01019
Subject to change without notice

Archive-File/Record: 4501390-42-4149210-08
Documents registrar: Robert Mayn
Wiesenweg 22, D-94405 Landau/Isar

GUARANTEE CERTIFICATE

Dear Customer,

In the unlikely event that your device develops a fault, please contact our customer service department on the telephone number shown below.

1. These guarantee terms cover additional guarantee rights and do not affect your statutory warranty rights. Claims must be accompanied by Proof of Purchase. This must be in the form of a sales receipt or bank statement and must show that the product has been purchased within 2 years prior to the claim.

2. Our guarantee covers problems caused by material or manufacturing defects, and will result in the repair of these defects or replacement of the device or parts with a like for like or similar article. Please note that our devices have not been designed for use in commercial, trade or industrial applications. Consequently, the guarantee is invalidated if the equipment is used in commercial, trade or industrial applications or for other equivalent activities.

3. The following are also excluded from our guarantee:

A) Faults due to accidents, customer misuse , or unauthorized repairs
B) Consumable Parts such as Blades/ Chains/trimmer lines/vacuum bags/spark plugs or filters
C) Failure due to lack of routine maintenance
D) Failure as a result of not using the equipment in accordance with the manual and safety instructions
E) The adjustment or lubrication cables , drive belts , or recoil starters

3. The guarantee is valid for a period of 2 years starting from the purchase date of the device. Guarantee claims should be submitted before the end of the guarantee period within two weeks of the defect being noticed. No guarantee claims will be accepted after the end of the guarantee period. The original guarantee period remains applicable to the device even if repairs are carried out or parts are replaced. In such cases, the work performed or parts fitted will not result in an extension of the guarantee period, and no new guarantee will become active for the work performed or parts fitted.

EINHELL UK LTD HELPLINE: + 44 151 649 1500

Home Retail Group
489-499 Avebury Boulevard,
Saxon Gate West,
Central Milton Keynes
MK9 2NW

Helpline Numbers:
UK 0151 649 1500
IRE 1890 946 244

Einhell UK Ltd
Unit 5 Morpeth Wharf,
Twelve Quays Birkenhead,
Wirral
CH41 1LF

Contact Numbers:
TEL 0151 649 1500
FAX 0151 649 1501

GB
The reprinting or reproduction by any other means, in whole or in part, of documentation and papers accompanying products is permitted only with the express consent of ISC GmbH.

GB Technical changes subject to change